

Insect Fauna of the Silversword and Greensword.

BY O. H. SWEZEY AND OTTO DEGENER

(Presented at the meeting of October 6, 1927)

These two plants, *Argyroxiphium sandwicense macrocephalum*, and *A. virescens*, respectively, are very restricted in their distribution on the Island of Maui. It has been known for some time that certain insects are peculiar or attached to them, though no special study has been made of them. Very few of the entomologists have ever been to the places where these plants grow, and since the time of Dr. Perkins' collecting there have been but two or three such occasions. In August, 1927, while camped in Haleakala Crater collecting plants, Mr. Otto Degener collected a number of insects from these plants, the study of these for record is the incentive for the present paper.

LEPIDOPTERA

Phycitid.

In the flower heads the larvae of a Phycitid moth destroy many of the growing seeds. This has been known for some time but the identity of the species has not been ascertained. It is thought to be a new species of a hitherto undescribed genus. No specimens of the moth have been reared in good enough condition for description. The larvae have also been found feeding amongst the leaves at the base of the plants which have not yet reached the blossoming stage. In this way they could carry over by different broods between blossoming seasons.

Euxoa epicremna (Meyr.) (?).

Three large Noctuid caterpillars apparently nearly full-grown were found hiding beneath silversword plants. As there was no other vegetation nearby, it must be inferred that they were living on the leaves of the silversword, the lower leaves of which rest in a mass on the ground. Possibly these caterpillars belong to the dark species *Euxoa epicremna* (Meyr.) collected by Mr. Swezey at the summit of Haleakala on June 17, 1927. A few moths were secured from the surface of the water tank for watering horses at

the Haleakala shelter house. They were very frequently scared up from clumps of bushes along the trail to White Hill and Red Hill, but were too quick of flight for capture. No larvae were to be found under clumps of bushes, or in grass tufts.

Tineid.

Quite a number of small caterpillars, probably from the old dead leaves.

HOMOPTERA

***Ilburnia argyroxyphii* (Kirk.).**

A number of these small leafhoppers which feed on the young plants. This species has been known for some time, and has been collected by Dr. R. C. L. Perkins and O. H. Swezey. Three of a mymarid parasite (*Polynema* sp.) which is probably an egg-parasite of this leafhopper were collected by Mr. Degener.

***Ilburnia bridwelli* Muir.**

Two specimens of this leafhopper were collected on greensword in a gulch mauka from Puu Nianiau, Maui, August 29, 1917, by Bridwell. At the same place on June 15, 1927, Swezey secured a series of 20 specimens from silversword plants.

DIPTERA

***Tephritis cratericola* Grimshaw.**

A trypetid fly that breeds in the flower heads of *A. sandwicense*. Has been known for some time. Was first collected by Dr. Perkins. Also collected by Swezey, July 21, 1906. In connection with the larvae of the Phycitid moth above mentioned, prevents very much seed production. Mr. Degener found this also abundant in heads of *A. virescens*, where a good deal of this plant was growing in the Keanae Gap.

COLEOPTERA

***Nesithmysus* n. sp.**

Ten larvae of various sizes, 2 adults and fragments of another beetle were found in stems of silversword that were flowering. They were not in other plants which were not flowering, and Mr. Degener did not consider that they were concerned or responsible for lack of seed production, as they infested the stems too late in their growth. This is the first finding of this beetle in

this plant. It appears to be the same species of which Swezey obtained 2 specimens from *Raillardia* bushes on the summit of Haleakala, June 17, 1927. Larvae were also found in dead stems of the *Raillardia*, and a few exit holes where beetles had issued. Both lots of specimens have been sent to Dr. Perkins for study and description.

***Proterhinus fuscicolor* Perkins.**

This small species was discovered on the greensword in a gulch mauka from Puu Niania, Maui, on August 29, 1918, by Swezey and Bridwell. At the same place a series of 34 beetles was collected by Swezey, June 15, 1927. No larvae were found, but the beetles were found amongst the numerous dead leaves at the base of stems and it is to be inferred that the larvae fed in these leaves or in the stems of the dead plants.

MISCELLANEOUS

Some incidental captures on the greensword by Swezey, June 15, 1927, were the following, which are not to be considered as attached or particularly belonging to this plant:

- 1 *Oodemus mauiense*?
- 2 *Lathridius nodifer*?
- 2 Green jassids, probably *Nesosteles* sp.
- 4 *Nysius* sp., probably 2 species.
- 1 *Ithamar hawaiiensis* Kirk.

Palm Seed Scolytids in Hawaii (Col.)

BY O. H. SWEZEY

(Presented at the meeting of November 4, 1927)

From specimens sent to Dr. E. C. Van Dyke, he has recently determined as *Coccotrypes dactyliperda* (Fabr.)* a brown scolytid that breeds abundantly in date seeds. So long ago as 1916, J. C. Bridwell found this insect feeding in date seeds lying on the ground where they had fallen from the trees. No attempt was made at

* *Bostrychus dactyliperda* Fabr., Syst. El. II, p. 387, 1801.

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